ADVERSE REACTIONS

HDCV

Reactions after vaccination with HDCV are less common than with previously available vaccines. In a study using five doses of HDCV, local reactions, such as pain, erythema, and swelling or itching at the injection site, were reported in about 25% of recipients, and mild systemic reactions, such as headache, nausea, abdominal pain, muscle aches, and dizziness, were reported in about 20% of recipients.

Up to 6% of persons receiving booster doses of HDCV may experience "immune complex-like" reactions (type III IgG mediated hypersensitivity reactions). The illness, characterized by onset 2-21 days post booster, presents with generalized urticaria and may also include arthralgia, arthritis, angioedema, nausea, vomiting, fever, and malaise. No life threatening cases of "immune complex-like" illness have been reported. This phenomenon rarely occurs with primary immunization with HDCV.

The origin of these "immune complex-like" reactions has been attributed to sensitization to the β-propiolactone-treated human serum albumin present in HDCV. Human serum albumin is not a component of the medium used to grow the rabies virus for RVA and, therefore, is not present when β-propiolactone is added to inactivate the virus. Preliminary data indicate that "immune complex-like" illness has been reported in <1% of persons who have received booster doses of RVA.

Those persons with a history of "immune complex-like" illness following HDCV and who must receive rabies vaccine boosters may be candidates for RVA or other rabies vaccines which do not have B-propiolactone bound to human serum albumin. If this is not possible and HDCV must be given, the guidelines in the "Management of Adverse Reactions" section should be followed (page 21).

PCEC

As with HDCV and RVA, local reactions such as swelling, induration, and reddening have been associated with the administration of PCEC. Systemic allergic reactions are also possible and have been reported.

Rabies Immune Globulin, Human

Local pain and low-grade fever may follow receipt of HRIG. Although not reported specifically for HRIG, angioneurotic edema, nephrotic syndrome, and anaphylaxis have

been reported after injection of immune globulin (IG). These reactions occur so rarely that a causal relationship between IG and these reactions is not clear.

Management of Adverse Reactions

Once initiated, rabies prophylaxis should not be interrupted or discontinued because of local or mild systemic adverse reactions to rabies vaccine. Usually such reactions can be successfully managed with anti-inflammatory and antipyretic agents.

When a person with a history of hypersensitivity must be given rabies vaccine, antihistamines may be given; epinephrine should be readily available to counteract anaphylactic reactions, and the person should be carefully observed immediately after immunization.

Serious systemic anaphylactic or neuroparalytic reactions occurring during the administration of rabies vaccine pose a serious dilemma for the attending physician. A patient's risk of developing rabies must be carefully considered before deciding to discontinue vaccination. Moreover, the use of corticosteroids to treat life-threatening neuroparalytic reactions carries the risk of inhibiting the development of active immunity to rabies. It is especially important in these cases that the serum of the patient be tested for rabies antibodies. Advice and assistance on the management of serious adverse reactions in persons receiving rabies vaccines may be sought from the Bureau of Communicable Disease Control, Texas Department of Health (512-458-7455).

All serious systemic neuroparalytic or anaphylactic reactions to a rabies vaccine should be immediately reported to the Immunization Division, Texas Department of Health (512- 458-7284).